

## INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.  
2000B009SERIAL NO.  
09/511,943APPLICANT  
XU ET AL.FILING DATE  
FEBRUARY 24, 2000GROUP  
1754

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBL. DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
146	AJ	270 526 A1	08/02/89	Germany			X	
	AK							

## OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages of Publication, Etc.)

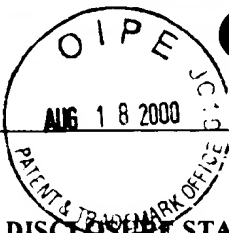
147	AL	"MTO - has its time come?" Nitrogen & Methanol, No. 246, Jul-Aug 2000						
	AM							
	AN							

EXAMINER

DATE CONSIDERED

\*EXAMINER:

Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next comment to applicant.



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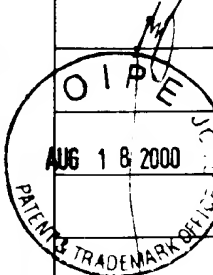
FEBRUARY 24, 2000

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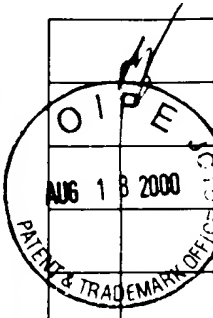
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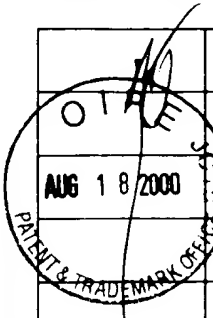
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	2,949,493	08/16/60	Happel et al.	260	678	
	AB	3,258,455	06/28/66	Natta et al.	260	93.7	
	AC	3,305,538	02/21/67	Natta et al.	260	93.7	
	AD	3,364,190	01/16/68	Emrick	260	93.7	
	AE	3,645,992	02/29/72	Elston	260	80.78	
	AF	4,044,061	08/23/77	Chang et al.	260	668	
	AG	4,060,568	11/29/77	Rodewald	260	682	
	AH	4,062,905	12/13/77	Chang et al.	260	682	
	AI	4,068,136	01/10/78	Minami	307	353	
	AJ	4,076,698	02/28/78	Anderson et al.	526	348.6	
	AK	4,079,095	03/14/78	Givens et al.	260	682	
	AL	4,079,096	03/14/78	Givens et al.	260	682	
	AM	4,086,186	04/25/78	Rubin et al.	252	430	
	AN	4,090,981	05/23/78	Rodewald	252	455	
	AO	4,100,219	07/11/78	Rodewald	260	682	
	AP	4,145,315	03/20/79	Rodewald	252	455	
	AQ	4,156,698	05/29/79	Dwyer et al.	585	408	
	AR	4,231,899	11/04/80	Chen et al.	252	455	
	AS	4,243,691	01/06/81	Mohlenkamp, Jr. et al.	426	649	
	AT	4,302,565	11/24/81	Goecke et al.	526	88	
	AU	4,302,620	11/24/81	Chu	585	467	
	AV	4,302,621	11/24/81	Chu	585	467	



	AW	4,372,878	02/08/83	Wunder et al.	252	455	
	AX	4,387,263	06/07/83	Vogt et al.	585	640	
	AY	4,402,867	09/06/83	Rodewald	252	455	
	AZ	4,440,871	04/03/84	Lok et al.	502	214	
	BA	4,465,889	08/14/84	Anthony et al.	585	640	
	BB	4,477,583	10/16/84	Rodewald	502	71	
	BC	4,481,376	11/06/84	Wunder et al.	585	640	
	BD	4,499,314	02/12/85	Seddon et al.	585	408	
	BE	4,499,327	02/12/85	Kaiser	585	640	
	BF	4,500,651	02/19/85	Lok et al.	502	208	
	BG	4,524,234	06/18/85	Kaiser	585	638	
	BH	4,550,217	10/29/85	Graziani et al.	585	324	
	BL	4,551,236	11/05/85	Lok et al.	208	112	
	BJ	4,554,143	11/19/85	Messina et al.	423	306	
	BK	4,554,260	11/19/85	Pieters et al.	502	61	
	BL	4,567,029	01/28/86	Wilson, et al.	423	306	
	BM	4,579,999	04/01/86	Gould et al.	585	312	
	BN	4,594,332	06/10/86	Hoelderich et al.	502	64	
	BO	4,605,492	08/12/86	Lok et al.	208	310	
	BP	4,638,106	01/20/87	Pieters et al.	585	633	
	BQ	4,659,685	04/21/87	Coleman, III et al.	502	310	
	BR	4,677,242	06/30/87	Kaiser	585	638	
	BS	4,677,243	06/30/87	Kaiser	585	638	
	BT	4,683,334	07/28/87	Bergna et al.	564	474	
	BU	4,752,651	06/21/88	Kaiser	585	633	
	BV	4,861,743	08/29/89	Flank et al.	502	214	
	BW	4,861,938	08/29/89	Lewis et al.	585	640	
	BX	4,929,780	05/29/90	Wright et al.	585	303	
	BY	4,943,424	07/24/90	Miller	423	328	



	BZ	5,095,163	03/10/92	Barger	585	640	
	CA	5,096,684	03/17/92	Guth et al.	423	306	
	CB	5,126,308	06/30/92	Barger et al.	502	214	
	CC	5,157,181	10/20/92	Stine et al.	585	329	
	CD	5,176,817	01/05/93	Skeels et al.	208	111	
	CE	5,191,141	03/02/93	Barger et al.	585	640	
	CF	5,233,117	08/03/93	Barger	585	640	
	CG	5,234,875	08/10/93	Han et al.	502	77	
	CH	5,250,484	10/05/93	Beck et al.	502	71	
	CI	5,278,345	01/11/94	Janssen et al.	585	640	
	CJ	5,279,810	01/18/94	Calabro	423	701	
	CK	5,324,493	09/20/94	Mueller et al.	423	311	
	CL	5,349,113	09/20/94	Chang et al.	585	475	
	CM	5,349,114	09/20/94	Lago et al.	585	475	
	CN	5,365,003	11/15/94	Chang et al.	585	470	
	CO	5,455,213	10/03/95	Chang et al.	502	63	
	CP	5,475,182	12/12/95	Janssen	585	640	
	CQ	5,476,823	12/19/95	Beck et al.	502	60	
	CR	5,541,146	07/30/96	Chang et al.	502	64	
	CS	5,663,471	09/02/97	Kvisle et al.	585	639	
	CT	5,689,025	11/18/97	Abichandani et al.	585	467	
	CU	5,714,662	02/03/98	Vora et al.	585	648	
	CV	5,714,663	02/03/98	Serrand et al.	585	648	
	CW	5,744,673	04/28/98	Skeels et al.	585	474	
	CX	5,744,680	04/28/98	Mulvaney, III et al.	585	640	
	CY	5,892,079	04/06/99	Wilson, Jr.	556	11	
	CZ	5,904,880	05/18/99	Sun	252	373	
	DA	5,907,076	05/25/99	Ou et al.	585	800	
	DB	5,912,393	06/15/99	Barger et al.	585	640	



	DC	5,925,586	07/20/99	Sun	502	62	
	DD	5,925,800	07/20/99	Sun et al.	585	640	
	DE	5,927,063	07/27/99	Janda et al.	60	39.02	
	DF	5,932,512	08/03/99	Sun	502	214	
	DG	5,952,538	09/14/99	Vaughn et al.	585	640	
	DH	5,960,643	10/05/99	Kuechler et al.	62	620	
	DI	5,962,762	10/05/99	Sun et al.	585	640	
	DJ	5,972,203	10/26/99	Smith et al.	208	113	
	DK	6,004,898	12/21/99	Sun	502	214	
	DL	6,005,155	12/21/99	Sun	585	640	
	DM	6,023,005	02/08/00	Lattner et al.	585	639	
	DN	6,034,020	03/07/00	Drake et al.	502	60	
	DO	6,040,257	03/21/00	Drake et al.	502	60	
	DP	6,040,264	03/21/00	Sun et al.	502	214	
	DQ	6,046,371	04/04/00	Wu et al.	585	638	
	DR	6,046,373	04/04/00	Sun	585	640	
	DS	6,051,745	04/18/00	Wu et al.	585	638	
	DT	6,051,746	04/18/00	Sun et al.	585	639	
	DU	6,057,261	05/02/00	Sun	502	341	

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBL. DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	DV	Chem. Express (1986), 1(7), 439-42	1986	JP - ABSTRACT ONLY - (English)			X	
	DW	J5 8199-714	05/18/82	JP (Abstract Only)			X	
	DX	WO 88/01254	02/25/88	PCT (English)				
	DY	WO93/17788	09/16/93	PCT (English)				
	DZ	WO93/24431	12/09/93	PCT (English)				
	EA	WO 96/28408	09/19/96	PCT (English)				

OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages of Publication, Etc.)

	EB	Barger et al., "Converting Natural Gas to Ethylene and Propylene by the UOP/Hydro MTO Process," 12 <sup>th</sup> International Zeolite Conference 1999 Materials Research Society p. 567-573
	EC	Blackwell et al., "Solid-State NMR of Silicoaluminophosphate Molecular Sieves and Aluminophosphate Materials," J. Phys. Chem., 92, 3965-3970 (1988)
	ED	Chang, "Methanol Conversion to Light Olefins," Catal. Rev.-Sci. Eng., 26(3&4), 323-345 (1984)
	EE	Chen et al., "Understanding the Bronsted Acidity of SAPO-5, SAPO-17, SAPO-18 and SAPO-34 and their Catalytic Performance for Methanol Conversion to Hydrocarbons," <i>Studies in Surface Sciences and Catalysts</i> , Proceedings of the Tenth International Catalysis Society, Volume 84, pp. 1731-1738 (1994)
	EF	Dahl et al., "Structural and chemical influences on the MTO reaction: a comparison of chabazite and SAPO-34 as MTO catalysts," Microporous and Mesoporous Materials 29 (1999) 185-190
	EG	De Chen et al., "The effect of crystal size of SAPO-34 on the selectivity and deactivation of the MTO reaction," Microporous and Mesoporous Materials 29 (1999) 191-203
	EH	De Chen et al., "The Role of Coke Disposition in the Conversion of Methanol to Olefins over SAPO-34," Stud. Surf. Sci. Catal., 111 (Catalyst Deactivation 1997), pp 159-166 (1997)
	EI	Groenvold et al., "Conversion of methanol to lower alkenes on molecular sieve type catalysts," Stud. Surf. Sci. Catal., 81 (Natural Gas conversion II), 399-404 (1994)
	EJ	Hutchings et al., "Methanol conversion to hydrocarbons over zeolite H-ZSM-5: comments on the formation of C <sub>4</sub> hydrocarbons at low reaction temperatures," Applied catalysis A: General, 106 (1993) 115-123 (1993)
	EK	Kaeding et al., "Production of Chemicals from Methanol," Journal of Catalysis 61, 155-164 (1980)
EL	Lysenko et al., "Passivation of Vanadium and Nickel on Cracking Catalysts," Neftekhimiya 28, No. 3, 356-358, 1988	
EM	Prakash, A.M., "Synthesis of SAPO-34: High Silicon Incorporation in the Presence of Morpholine as Template," J. Chem. Soc., Faraday Tans., 1994, 90(15), 2291-2296	
EN	Schulz et al., "Deactivation and thermal regeneration of zeolite HZSM-5 for methanol conversion at low temperature (260-290°C)", Microporous and Mesoporous Materials 29(1999) pp 205-218.	
EO	Schulz et al., "Kinetic regimes of zeolite deactivation and reanimation," Applied Catalysis A: General 132 (1995) 29-40	
EP	Wilson et al., "The characteristics of SAPO-34 which influence the conversion of methanol to light olefins," Microporous and Mesoporous Materials 29 (1999) 117-116	
EXAMINER B. Yildirim		DATE CONSIDERED 12/02/02
*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line though citation if not in conformance and not considered. Include copy of this form with next comment to applicant		